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5 March 1980

Worldwide Report

EPIDEMIOLOGY

No. 177

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TREATMENT OF DISEASE VICTIMS BY SOUTH AFRICANS DENIED

Johannesburg THE CITIZEN in English 13 Feb 80 p 3

[Article by Stella Fouche]

[Text] **KENYA appears to be highly embarrassed by the fact that two South African doctors are in their country helping to combat a rare and deadly disease.**

A senior medical officer has denied that the two doctors — Dr Benny Miller and Dr Margaret Isaacson — are South Africans. He claims that they are Dutchmen affiliated to the World Health Organisation and based in South Africa.

Dr Johan de Beer, Secretary for Health, confirmed in a statement yesterday that Dr Miller and his colleague, Dr Isaacson; responded to a call from WHO earlier this week and flew to Nairobi with the blessing of the SA Government to help treat two critically ill patients and a suspected victim of the deadly "Green Monkey" disease.

The critically ill patients are a Ugandan doctor, Dr Shem Musoke (37) and a nurse working at the Nairobi Hospital.

Kenyan authorities were yesterday trying to trace the body of a Frenchman who died in hospital and may have transmitted the disease, which is also known as Marburg's disease, to the doctor and nurse.

Officials said the Frenchman arrived at the hospital about six weeks ago in a comatose state and died shortly afterwards. They understood the body had been sent back to France.

Experience

The South African doctors had experience in the treatment of the disease in 1976 when an American technician contracted it in Zaire and was flown to Johannesburg for treatment.

Dr Miller and Dr Isaacson treated Mr Dei Conn and he recovered, returning later to the United States.

In a telephonic interview with Dr Miller yesterday, he said he was very sorry but he was under obligation to give no information at all.

"You must appreciate our position. We cannot talk to you over the phone now," he said.

Dr Johan de Beer said in his statement yesterday that the World Health Organisation had requested the Republic to participate in a team to investigate the outbreak of Marburg disease in Nairobi with a view to controlling it.

"The request was directed in view of the special knowledge which South Africa has in the field of Marburg disease and the facilities at our disposal for the treatment of patients suffering from the disease, as well as the investigation of laboratory specimens which might possibly be contaminated with the virus.

CSO: 5400

DOMESTIC MANUFACTURE OF VACCINE TO BE INCREASED IN 1980

Rio de Janeiro O GLOBO in Portuguese 22 Dec 79 p 6

[Text] Brasilia (O GLOBO)--The Ministry of Health will start a national training program in immunobiological products, which will allow the government to carry out all vaccination activities and to reach the immunization levels recommended by the World Health Organization, i.e., 75% of the population open to risk.

Mozard de Abreu e Lima, secretary-general of the ministry, said that the intention is to "provide laboratories with a technical-scientific infrastructure, which will result in eliminating imports burdensome for the country, in addition to providing the intensive training of scientific personnel."

According to Abreu e Lima, "the politico-social objective of the program is to enable the Ministry of Health to fully develop the vaccination activities and the Public Health laboratories network, providing the supply of vaccines and laboratory diagnostic material of high technical-scientific quality."

Presently only vaccines against whooping cough, tetanus, measles, human and canine antirabies, and intradermic BCG are manufactured in Brazil. The program should make it possible to manufacture and store all vaccines against diseases which occur in this country.

To raise the necessary funds for the implementation of the program (estimated at 35 million cruzeiros), representatives of the Development Bank, Bank for Financing Basic Inputs, Bank for Financing Studies and Projects and the Industrial Technology Secretariat will meet in early January.

9568
CSO: 5400

UNIDENTIFIED ILLNESS AFFECTING PARANA INDIAN CHILDREN

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 30 Dec 79 p 14

[Text] The mysterious illness which killed three Caingangue children of the Palmas Indian Reservation in southern Parana has already spread to the entire child population of the reservation estimated at more than 100 children. This was confirmed by doctors of the FUNAI [National Indian Foundation], who day before yesterday afternoon went to the area in an up-to-now unsuccessful attempt to identify the illness. Informed of the problem, FUNAI headquarters in Brasilia alerted a medical team from Campo Grande in Mato Grosso do Sul in case its help is needed in Palmas.

According to doctors, however, the illness did not appear with much intensity among the other children of the Indian reservation, who show a clinical picture similar to that of influenza. Vaccination against poliomyelitis, initiated yesterday in Palmas, was halted in the reservation due to the illness. Since poliomyelitis, an outbreak of which is less than 80 kilometers from Palmas, initially has symptoms similar to those of influenza, FUNAI officials at first suspected that it was infantile paralysis. Yesterday, however, after doctors examined three children, who remain in the hospital, they discarded that theory and ordered that vaccinations against poliomyelitis not be given in the reservation because of the fever affecting the children. The high death rate, as in the case of poliomyelitis, is also thought strange: of six children (the exact number of cases confirmed yesterday) afflicted, half died. The same problem is being encountered in poliomyelitis: 50 percent of the patients died.

Without succeeding in identifying the illness, the doctors yesterday sent the children still in the hospital in Palmas to Curitiba to "obtain a clear diagnosis of the strange illness," according to the text of the communique sent to the FUNAI Regional Agency yesterday morning. According to the communique, the illness is afflicting children in the 3-month to 10-year age group and its symptoms are similar to those of whooping cough, that is, a high fever and severe coughing, but without paralysis of the limbs as in the case of poliomyelitis. The removal of the patients was also ordered

by the Parana Secretariat of Health, which is going to send specimens collected (blood, feces, mucus and urine) to Porto Alegre for identification of the type of virus. There are no specialized laboratories in Curitiba for those types of analyses.

Drs Nicolau da Silva and Paulo Cordeiro Caiana confirmed that the strange illness causes many convulsions in addition to fever and cough and the final result is the death of the patients from heart failure. Patients do not react favorably to treatment with oxygen despite respiratory complications. "On the contrary, the children's conditioned worsened," reported regional FUNAI agent Jose Carlos Alves, who remained on duty yesterday, maintaining contact with the medical team in Palmas. He confessed he is alarmed at the problem. The Palmas Indian Reservation consists of 283 Caingangue Indians, the majority of them children.

8908
CSO: 5400

POLIO RELATED DEATHS NUMBER 18 IN PARANA: INCIDENCE DATA

Brasilia Report

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 30 Dec 79 p 14

[Text] Brasilia--Although the Medicine Distribution Center has distributed 17,844,780 doses of antipolio vaccine free to the states this year, 1,797 cases of polio have been reported throughout the country from January through October alone, of which 91 percent are among children four years old or less. Of this total only 10 million doses have been administered, and only 1,322 children have received the third dose, and are thus considered fully immunized. For 1980 the distribution of almost three times as many vaccines is foreseen: 30,131,800 doses.

These statistics are considered alarming by health authorities, since they represent only a fraction of all children affected by infantile paralysis and not reported by the Health Ministry. Furthermore, the World Health Organization (WHO) has established the objective of reducing polio mortality by 1 in 100,000 of the population in this decade.

Even so, the available official statistics say that the number of diseased has decreased during the past few years. In 1976, 2,458 cases of polio were registered; in 1977, 2,398; and in 1978, 1,711, against 1,797 from January through October this year, when the compulsory presentation of minors' immunization cards by parents or guardians in order to receive family subsidies went into effect.

According to the Bulletin of the SESP [Special Public Health Service] Foundation, 1,563 cases of polio had been registered up to September, distributed as follows: 680 in the Southeast region; 627 in the Northeast region; 117 in the Midwest region; 76 in the South and 63 in the North. More recent data confirm 184 cases in January, 206 in February, 200 in March, 209 in April, 190 in May, 190 in June, 168 in July, 186 in August, 138 in September and 121 in October. For a child to be considered properly immunized against polio, he must receive four doses of Sabin vaccine; the first three between the ages of 2 months and 4 years and the last one, called booster vaccine, one year later. For safety, the Ministry of Health maintains 9 million doses of antipolio vaccine stored at CIBRAZEM (Brazilian Warehousing Company) in Rio de Janeiro, since this is the only vaccine still totally imported.

Curitiba Report

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 30 Dec 79 p 14

[Text] The number of children dead as a consequence of the outbreak of polio in the area has increased to 18 in the city of Uniao da Vitoria on the border of the State of Parana with Santa Catarine. Jose Rogerio Thomale, a 14-year-old boy, hospitalized three days ago at the Sao Bras Hospital, died early in the morning, shortly after another child, also showing symptoms of the disease, was hospitalized. With this the number of officially recorded cases has increased to 34, but the Mayor's office suspects that the disease might have affected a greater number of persons, especially in the more remote rural areas, cases not reported to the local Health District.

In Ponta Grossa, a little more than 100 kilometers from Curitiba, where the state health secretariat suspects the existence of a new focus of polio, another child was hospitalized in Santa Casa (Public Charity Hospital) increasing the number of known cases to 10. As was done in Uniao da Vitoria and Porto Uniao, the state health secretariat initiated a mass vaccination of the population starting Friday afternoon, in order to prevent the spread of the disease.

The chief of the Uniao da Vitoria Health District, Adir Zandona, declared yesterday that all 8,000 children of the area that have not yet been immunized will be vaccinated by January 15. Since yesterday morning, vaccination stations have been active at all exists from the city and at the bus terminal. Children who enter or leave the city, even on transit buses, must take the vaccine.

9568
CSO: 5400

BRIEFS

POLIO OUTBREAK--At the end of the vaccination campaign against poliomyelitis in the state of Parana, 14 new cases had been detected--including one resulting in death--increasing to 99 the number of children affected since January. Most of these cases were detected in Foz de Iguazu, on the border with Paraguay. This fact is worrying state government officials, who had expected a considerable decrease in the number of cases after the massive vaccination campaign. Health secretariat experts fear that the epidemic might spread to the Paraguayan side, where no known prevention campaign is underway. [Sao Paulo Radio Bandeirantes Network in Portuguese 1000 GMT 12 Feb 80 PY]

YELLOW FEVER OUTBREAK--Eleven cases of yellow fever have been reported in Goias State, where a mass vaccination campaign in now underway. Another case has been reported in Para State. [PY172241 Brasilia Domestic Service in Portuguese 2200 GMT 15 Feb 80 PY]

CSO: 5400

CELL LINE DISCOVERY FOR VACCINE PREPARATION DESCRIBED

Yaounde CAMEROON TRIBUNE in French 18 Dec 79 p 10

[Article by Etoundi Essomba Many and Manang Michel of the Institute for Medical Research and Medicinal Plant Studies: "The Discovery of a Cebus Monkey Kidney Cell Line for Preparing Viral Vaccines"]

[Excerpt] The research work on which we are reporting, which resulted in isolation of a cell line colony is not proceeding merely by chance. In fact, when the fourth five-year plan was worked out with our participation, we had as a medical research subject cellular culture, because of the wealth and diversity of our natural potential, especially various specimens of monkeys (Cercopithecus, Erythrocelus, Cynocephalus, Cebus, etc.); because of the abundance and recuperation capability of the organs surgically removed, such as the thyroid (goitrogenic regions exist in Cameroon); and because of the collecting of placentas and postabortal fetus lungs in the maternity services. All of this "explant" should enable us to isolate the viruses and eventually a cell line. But in the face of the paucity of enthusiasm and lack of interest in our progress on the part of our hospital colleagues, we oriented ourselves toward the systematic purchase of monkeys, despite our meager means, after looking in vain for cooperation and concern from the ministerial administrative department as to a continuing supply of captured living monkeys and then the purchase of chicken eggs, the embryo of which is a material of choice for isolating viral agents (which, by the way, enabled us to isolate for the first time in Cameroon the flu virus A Victoria in 1976).

The technique for isolating the Cebus monkey cell line colony was as follows: trysinization of kidney of monkey, genus Cebus fuliginosis. Date of trypsinization: 1 August 1979.

After three days in the culture medium, we obtained a layer of fairly homogeneous cells.

Technique: the small monkey was sacrificed by bleeding. Both kidneys are removed under sterile conditions. The capsule is then removed, the kidneys cut in half (median frontal cut) and the [renal] pelvis, calyces and the greater part of the medulla are removed, leaving only the cortical part of the medulla. The latter is cut up into a 125-milliliter Fourneau flask in small

pieces measuring 2 to 3 mm on one side. These pieces are then washed by agitating them in physiological solution (Hanks) until the washing fluid is almost clear. Thus part of the blood impregnating the tissue is removed. The operation which is called predigestion is then proceeded with (first trypsinization).

Actual digestion is carried out in principle at 30 degrees C (Centigrade). A continuous digestion apparatus is used.

All that remains, then, is to suspend the cells in a culture medium and divide this suspension among the tubes and flasks that will be put in the incubator at 37 degrees C.

On all four days we retrypsinize the cells to produce new syntheses.

Culture medium: a base of NaCl [sodium chloride], KCl [potassium chloride], $MgSO_4$ [magnesium sulfate], $MgCl_2$ [magnesium chloride], $CaCl_2$ [calcium chloride], disodium hydrogen phosphate and monopotassium phosphate, amino acids. To this is added calf serum.

Latent virus research: study of the cytopathogenic effect after the cells are stained at each synthesis.

Study of the karyotype: the cells of each synthesis are studied and counted.

This study includes a first culture period whose goal is to obtain cells in division at the end of the prophase or the beginning of the metaphase, the only period during which the chromosomes are perfectly individualized. A second period of histologic technique consists of causing the cell to expand in order to separate its chromosomes, prepare smears of them, fix and stain them.

The count may be performed with a microtelevision apparatus and the practical examination by microphotography, making it possible to establish the karyotype. The technique is derived from the Moochead method.

Bacteriologic Controls: No Contamination

Adaptation: The syntheses are performed without problems. At present we are at the 12th synthesis of our cells; which confirms our discovery of a cell line colony.

Usually, after trypsinizing first-explant human or animal organs, one can obtain a maximum of two or three cellular subcultures; in fact the growth of the latter is stopped by the phenomenon of inhibition of contact in cultured normal cells.

Giving prominence to a cell line is not original, inasmuch as in most of the laboratories in the entire world there are established cell colonies or cell lines. In fact, there are three types of cell lines:

1. Continuous cell lines which derive from human malignant tumors and are maintained indefinitely by successive syntheses on nutritious media. This is particularly the case with HeLa and KE cells, derived from cancer of the nasopharynx and the human uterus. These cancerous cells make it possible to isolate most of them because of their nature as neoplastic cells.

2. Cell lines from tissues which are normal, but "transformed" in the course of the subcultures.

   These transformed cells present all the attributes of neoplastic cells.

   This is the case with human amniotic fluid cells,

   Henle's intestine cells

   Chang human liver cells,

   Chang conjunctiva cells,

   L. Earle mouse cells,

   PS [expansion unknown] pig kidney cells.

3. Normal cell lines having a limited synthesis potential.

   This is the case with W 138 pulmonary tissue cells from normal human embryos,

   RK 13 renal rabbit cells,

   SIRC corneal rabbit cells,

   BHK21 established neonatal hamster line,

   BSC continuous monkey line.

These cells remain diploid, that is to say they retain their normal karyotype if they are maintained shielded from viral aggression. It makes possible the isolation of most viruses and is used in preparing many vaccines. They can be preserved in ampules frozen at each synthesis, which prevents loss of the colony, and in trypsinizing the thawed ampule again the virtually unlimited cell colony becomes available. The cell line we have isolated in our laboratory belongs to this category of cell lines with limited synthesis potential (a maximum of 50 syntheses). This type of cell must be responsive to a number of criteria of innocuousness and purity of the colony if one wishes to exploit it for purposes of viral vaccine preparation; they must not present signs of "transformation;" no foreign anomaly. In other words, it must present all the characteristics of purity and homogeneity; it must not harbor latent viruses,

such as the SV40 virus, whose oncogenic properties for laboratory animals always results in a fatal meningo-encephalitis. The Marbourg virus harbored by the Cercopithecus oetiops monkey, which contaminated laboratory workers in Germany and Yugoslavia during monkey autopsy or kidney removal in 1967 and caused the death of most of them, is only encountered in the monkeys of East Africa (Uganda, Kenya).

The Importance of the Discovery

As we have underscored throughout this report, the discovery of a new genetically normal diploid cell colony is a decisive step toward local production of viral vaccines, since one can produce to infinity from frozen cells a new cellular base, which can be inoculated with a virus like the measles, poliomyelitis or rubeola, and once the cytopathogenic effect is obtained the culture can be inactivated with heat in formaldehyde and betapropriolactone, or the virulence of the virus can be attenuated by means of synthesis, to obtain viral vaccines. Most of the present viral vaccines are prepared from these cells; this is the case with W138 normal human embryo pulmonary tissue diploid cells which are used in manufacturing antirabies vaccine, which eliminates the encephalitogenic factor contained in vaccines prepared from the sheep encephalon. Likewise, the BSC monkey kidney cell lines produce vaccines against rubeola, measles, poliomyelitis and it is in this perspective that since 1975 we have equiped the premises and an animal house at the Pasteur Center for the manufacture of viral and microbial vaccines in accordance with the mission allotted to our Institute, whose final goal is the promotion of the health of Cameroonian man by perfecting in our structures medications and disease prevention methods, having recourse insofar as possible to the intellectual, animal and floral patrimony of our country. The equipment for the above-mentioned premises now being acquired for us through the intervention of the UNIDO [United Nations Industrial Development Organization], whose new strategy for the Third World is to assure their "endogenous" development by means of industrialization to 1990 and putting to work an autonomous production unit, and control of imported or locally manufactured vaccines being in the process of realization.

This discovery falls within the expanded vaccination program of the WHO, whose new slogan is "Health for all in the Year 2,000," for the mass immunization of the population's young age brackets against measles, poliomyelitis and other infectious agents in the human environment.

8946
CSO: 5400

INCIDENCE OF INFLUENZA HIGH, NOT YET EPIDEMIC

AU011705 Bratislava PRAVDA in Slovak 31 Jan 80 p 2 AU

[Article by CTK: "Influenza Outbreak"]

[Text] Recently the number of influenza cases has markedly increased in some localities of the Czech Socialist Republic, particularly in Prague and in the districts of the North Bohemian region. A virological investigation confirmed that the increase in the number of the influenza cases has been caused by the A-type influenza virus of a variety whose occurrence in our country has been ascertained in recent years. The clinical course of the illness is not different from a relatively light case of influenza, the same as was the case in past years. Medical staffs in districts and regions are ready to implement all necessary measures depending on how the epidemiological situation develops. In order to prevent influenza, medical staffs recommend a sufficient intake of natural Vitamin C, particularly from oranges and lemons. Also of great importance is personal considerations, above all the use of handkerchieves when coughing or sneezing. When suffering from colds, the sick should not go to theaters, cinemas, balls and so forth.

Bratislava--Also in the Slovak Socialist Republic the number of cases of an influenza-like illness increased recently. About 32,000 citizens sought medical treatment last week. That was twice as many as in the first days of January. So far, however, one cannot talk about a typical epidemic. Some of the cases of the illness have probably been caused by one of the varieties of the A-type influenza virus, isolated by medical institutes in Bratislava and Banska Bystrica. It is a virus similar to the one that caused influenza in past years. The course of the illness is less severe.

CSO: 5400

MALARIA OUTBREAK LINKED TO INADEQUATE IMMIGRATION CONTROLS

Santo Domingo LISTIN DIARIO in Spanish 28 Dec 79 pp 1, 12

[Article by Hugo A. Ysaiguez: "Children Hospitalized"]

[Text] Dr Hugo Mendoza, director of Robert Reid Cabral Hospital, yesterday reported the existence of numerous cases of children afflicted with malaria. He indicated that one of the causes of the disease could be the lack of control over infected persons entering the country from Haiti.

He said that a total of 28 cases of children infected with malaria were reported in November and 17 so far in December.

Dr Mendoza indicated that the disease had broken out again unexpectedly because of the weakening of the controls established to prevent its transmission.

He explained that in 1968 the Dominican Republic was included among those countries in which malaria was adjudged to have been eradicated.

"About 2 years ago, however," the doctor said, "our control over the disease began to weaken, with the result that in recent months numerous cases have been discovered and confirmed through laboratory diagnosis."

Another of the causes of the resurgence of malaria, he said, is the resistance that the mosquito which transmits the disease has developed to DDT, the cheapest and most effective substance used to combat it.

Dr Mendoza cited as still another cause the fact that the malariology program is no longer under the direct control of the Pan American Health Organization.

He expressed the view that this situation tends to weaken the antimalaria controls.

He also complained of "our eternal organizational and administrative failure to deal with the problem."

"In any event," he added, "it appears that various factors are serving to weaken our control of the disease."

Dr Mendoza proclaimed the need for reviewing all the control mechanisms with a view to enabling our country once again to be included in the group of nations that have eradicated malaria.

The director of Robert Reid Cabral Hospital refused to say whether the cases of malaria that have occurred to date constitute an epidemic.

"I wouldn't venture an opinion as to whether it's an epidemic," he said. "I prefer to leave that to the experts on epidemiology.

"As a diagnostician," he added, "what I see is an increase in the number of cases--and the loss, or weakening, of the agencies charged with controlling the disease--for the various reasons we have cited."

One doctor on the staff of Robert Reid Cabral Hospital (who refused to identify himself) called the number of cases of malaria detected to date "alarming."

He declared that one child who has the disease is in critical condition, and expressed doubt that the little boy would survive.

[Article by Santiago Estrella Veloz: "Authorities Worried"]

An increase in the number of cases of malaria recorded so far this year is causing serious concern among the public health authorities of the Dominican Republic, who associate the increase with the immigration of thousands of Haitian agricultural workers and to the growing incidence of the disease throughout the world.

Malaria is described as a general, transmissible, acute disease that is sometimes grave and frequently chronic. It usually begins with an indefinite feeling of malaise followed characteristically by chills and fever, shaking, and a rapid rise in temperature (generally accompanied by headache and nausea) which ends in a heavy sweat.

A total of 1,531 cases of malaria were confirmed in our country last year, but (as in the case of Haiti) this figure is expected to rise before the end of 1979.

It is likely that this year the total for the Dominican Republic will surpass 2,000--a figure which is regarded as "high, and a cause for concern," particularly in view of the fact that endemic malaria has virtually disappeared in many countries where the disease had been a public health problem 2 decades ago.

One expert in malariology who chose to remain anonymous said yesterday that cases of malaria have recently been reported at various sugar complexes on the outskirts of the urban zone of Santo Domingo as well as in Pedernales and Dajabon provinces, both of which border on Haiti.

With the assistance of international organizations, the campaign against malaria in the Dominican Republic was greatly intensified during the decade of the 1950's. The highest figure reported in 1960 was in excess of 5,000 cases.

The programs for the eradication of malaria have in general been continued except for the interruption during the 1965 military conflict, which was of 7 months' duration.

The incidence of malaria continues to rise here as it rises in Haiti, where according to the most recent statistics the number of cases has increased from approximately 20,000 to more than 60,000.

"Although this increase is not cause for alarm," the expert told LISTIN DIARIO, "it is indeed cause for concern."

In tropical countries where malaria was traditionally hyperendemic its incidence has been reduced considerably through the application of modern methods of control.

The disease does, however, remain one of the principal causes of morbidity in many tropical and subtropical regions of Asia, Central America, South America and the islands of the southwest Pacific.

Man is the only significant reservoir of human malaria, although the anthropoid apes can serve as host to Plasmodium malariae.

The immediate source of infection is an infectant mosquito, and especially certain species of Anopheles which ingest human blood that contains infectious agents (plasmodia) in the form of gametocytes and act as definitive hosts.

This is precisely the source of the concern felt by the public health authorities, who year after year are employing economic, technical and human resources which are not always sufficient to eliminate the breeding places of the mosquitoes--a task which is being performed mainly through the intermediary of the National Malaria Eradication Service.

DDT, the insecticide of greatest residual action, is being used in the fumigation operations. As if in obedience to a law governing the evolution of the species, however, the mosquitoes have--it seems--developed their own defenses to the extent that it is becoming increasingly difficult to eliminate them.

The experts say this probably explains why there has been an increase in malaria in recent years, especially in Africa.

The Haitian agricultural workers who are arriving in the Dominican Republic under contract to cut the sugarcane are regarded as "potentially ill" with malaria. Blood samples are accordingly being taken from them and chloroquine sulfate administered to them.

Because it is impossible to keep these farm workers under observation and treatment for 3 days (which would be the proper procedure), however, many of them remain susceptible to malaria, which they continue to transmit--via the bites of the disseminator mosquitoes--in an ever expanding process.

One of the international measures recommended by the Pan American Health Organization (PAHO) and the World Health Organization (WHO)--in addition to insect extermination on planes, ships and vehicles--states very precisely:

"In special circumstances, antimalaria medications shall be administered to immigrant seasonal workers and to persons who take part in periodic mass migrations to a region where malaria has been eradicated."

"This was indeed the case in our country at one time," the expert told LISTIN DIARIO, "but we can no longer make such a statement."

10992
CSO: 5400

IMMEDIATE STEPS URGED TO COMBAT MALARIA SPREAD

Santo Domingo EL NACIONAL in Spanish 30 Dec 79 p 8

[Editorial: "A Malaria Epidemic?"]

[Text] As we know all too well, malaria (which had for a very long time been endemic in the Republic and caused great harm, particularly in the eastern region) was totally eliminated from our country thanks to an intensive, assiduous and effective program of draining swampy areas and foul waters and also thanks to a war without quarter against the anopheles mosquito--the nimble agent for transmission of the disease.

It has now been announced (and the reader will recall that this newspaper had already disclosed the fact) that malaria has flared up again--that it has had a resurgence and is spreading and intensifying with virulence and vigor, not only in the outskirts of the capital but also in a number of provinces and towns of the interior.

In the course of the present year--according to reports--exactly 1,531 serious cases have been recorded. This large number of patients (which is said to be increasing) is precisely what has given rise to the suspicion that we are faced with a genuine and pernicious epidemic. EL NACIONAL, moreover, had already reported about a month ago that some deaths from the disease had occurred.

Dr Hugo Mendoza attributes the sudden and unexpected reappearance of the debilitating disease to two causes: to carelessness and negligence in the implementation of the malariology program, and to the Haitian emigrants who enter our country as agricultural workers with the disease in tow, transmitting it and spreading it around them.

Both causes are easily combated: the first--the negligence of the public health establishment--by intensifying the effort to combat the presumed epidemic; and the second--the infected Haitian farm workers--by carrying out the provisions of the agreement between the Dominican Government and the Haitian Government which stipulate that before crossing our borders the workers of the neighboring country shall undergo thorough and careful medical examinations.

EL NACIONAL hopes that activities in both of these areas will be resumed without delay, in order that the health of the Dominican people may be safeguarded.

If the carelessness persists we shall once again have workers who do not have the strength required for productive labor, and hordes of rachitic children who suffer from mental retardation--capitis deminutio--children who have no aptitude for study or education.

10992
CSO: 5400

NEW UNIT TO HELP CONTROL LEPROSY, TB MORE EFFECTIVELY

Santo Domingo EL CARIBE in Spanish 28 Dec 79 p 25

[Article by Candida Figuereo]

[Text] San Pedro de Macoris, 27 December--Dr Huberto Bogaert Diaz, director of the Dermatologic Institute, says that the new dermatologic unit will help to bring about more effective control of leprosy and tuberculosis in the eastern region.

Dr Bogaert Diaz declared that the eastern region has one of the highest incidences of both diseases in the nation.

He stated in a press release that the new building was constructed at a cost of 54,373 Dominican pesos. He indicated that the unit will serve as a training center for the students of the Central University of the East (UCE).

The building has two consulting rooms, a waiting room, mycologic and clinical laboratories, a room for minor surgery, a department of rehabilitation, a department of epidemiology, an office and a pharmacy.

At the dedication of the building last Sunday Dr Bogaert Diaz spoke of the work being done by the other unit, which has been operating for 7 years in the East.

Approximately 700 new cases of leprosy were recorded during that period, he added. He said the high annual incidence of leprosy began to decrease beginning in 1975, in which year 481 cases were discovered.

Dr Bogaert Diaz said there have been 350 cases this year. He declared that the figure for the eastern region is still significant, in that it only declined from 144 cases in 1975 to 40 [sic] this year.

He said that of the total of 5,003 patients under the control of the Dermatologic Institute 1,007 reside in the East.

Dr Bogaert Diaz expressed his gratitude for the work accomplished by the employers' association of this city; the Rotary and Lions clubs; the Central University of the East (UCE); the State Sugar Council (CEA), which donated the land for the building; Dr Elsa Franco; Dr Dennis Martinez; and Mrs Grace Roman de Serrulle.

Dr Antonio Zaglui spoke in behalf of the residents of San Pedro de Macoris. He spoke of the city as it was when he was a child, "in the days of the 'forbidden houses'"--the residences of learned lepers such as the brothers Gaston and Fernando Deligne.

Also present at the ceremony were Dr Gilberto Rivera, representing the Public Health authorities; Mrs Olga Ordonez, president of the local employers' association; and various civilian and military authorities.

10992
CSO: 5400

BRIEFS

LACK OF POTABLE WATER--The residents of the Francisco del Rosario Sanchez subdivision--located at the eastern end of the bridge of the same name, near Los Mina--complain that they have had no potable water for almost 2 weeks. A delegation of the residents visited EL NACIONAL, where they said they had complained to the Santo Domingo Aqueduct Corporation (CAASD) without result. They are asking the authorities to send a brigade to solve the problem, in view of the danger that the lack of the precious liquid may give rise to epidemics. [Text] [Santo Domingo EL NACIONAL in Spanish 19 Dec 79 p 26] 10992

CSO: 5400

RABIES SPREADING IN EASTERN DEPARTMENTS

Paris LE FIGARO in French 10 Jan 80 p 12

[Text] Rabies is still a topical question in eastern France. Thus, near Lons-le-Saunier two persons have just been bitten, and so contaminated, by a mare afflicted with the rabies virus. The same mare also contaminated five cows.

In Alsace (in the Haut-Rhin and Bas-Rhin departments) 366 cases of rabies were listed in 1979 by departmental veterinary services, against 189 in 1978.

The rabies vectors are essentially foxes. And the veterinary services are uneasy about having discovered rabid foxes on several occasions inside settlements. They have been found as close as the near suburbs of Strasbourg.

The death must also be recalled of a Nancy college professor in late November 1978, following the transplant of a cornea taken from a woman who, unbeknownst to anyone, had been inoculated with rabies by a dogbite. But that accident had a very exceptional character, because the most extreme precautions are taken before every removal of tissue for transplant.

In Vosges the prefecture has just warned the public that a number of fox-destroying operations by means of poisoned bait are going to be undertaken between 15 January and 15 March.

The destruction of foxes is mobilizing a large number of animal protective organizations, which are arranging a meeting for 19 January in Mulhouse--a meeting whose object is to obtain annulment of the ministerial decree of 26 October 1978 authorizing systematic destruction of foxes by gassing their burrows.

8946
CSO: 5400

BRIEFS

INCREASE IN INFLUENZA INCIDENCE--As announced by the Ministry for Health, recently in the GDR there have been marked increases in cases of virus influenza. The course of the disease, which is caused primarily by exposure to infection by virus influenza type A_2, is generally of short duration. Moderately severe cases of this illness are not infrequently combined with pneumonia or gastrointestinal disorders. At the present time, there are similar epidemics in several neighboring countries. The necessary measures for prevention and care were promptly taken by the GDR Ministry for Health. Expanded outpatient and inpatient medical care, including an increase in the number of house calls, has been ensured in all kreises. The supply of medicines for the treatment of influenza is guaranteed. [Excerpt] [East Berlin NEUES DEUTSCHLAND in German 9-10 Feb 80 p 2]

CSO: 5400

THREE DIE FROM CHOLERA-RELATED DISEASE

Nairobi DAILY NATION in English 29 Jan 80 p 8

[Text] THREE members of a family near Kisumu have died after suffering from a disease thought to be akin to cholera.

According to a relative of Mzee Ndalo of Mwembe Mmoja, five miles from Kisumu on Kisumu-Kiboswa road, the old man's child died on January 9. The mother died the next day and Mzee Ndalo last January 21.

They had all complained of severe vomitting and diarrhoea and Mzee Ndalo was said to have been treated at a local private dispensary.

Medical officials in Kisumu were not immediately available to comment on the report but people living in the neighbourhood fear that the entire village could be wiped out if the desease is not diagnosed.

CSO: 5400

TUBERCULOSIS EXPENDITURES, PREVENTION IN GARISSA

Nairobi DAILY NATION in English 28 Jan 80 p 8

[Text] The Government is spending over 300,000/- in treating 300 tuberculosis patients in Garissa General Hospital every year. Tuberculosis has been a major health problem in the district due to the inhabitants nomadic lifestyle.

This was contained in a paper presented during the seminar on rural health, "Tuberculosis Control In Garissa by Health Authorities". The paper stated that TB patients had to stay in manyattas for six months before being discharged.

The Government is now providing very expensive drugs free to TB patients. The patients can obtain the drugs in divisional health centers instead of traveling to Garissa Provincial General Hospital.

CSO: 5400

BRIEFS

GREEN MONKEY DISEASE--The minister for health, Mr Arthus Magugu, has finally made an official statement concerning the green monkey disease that broke out at the Nairobi hospital last Friday and said that after protracted efforts made by the World Health Organization experts and hospital authorities, the killer disease had been contained. Mr Magugu, who made the statement from Kisumu, said three doctors, a number of nurses, health staff and laboratory workers at the hospital who are suspected to have contracted the disease are still under quarantine and their closest contacts are being similarly treated. Saying that there was no cause for alarm, the minister explained that two experts on the Marburg virus disease, Professor Isaacson and Dr Benny Miller, despatched by the WHO, were working progressively and have contained the situation. Mr Magugu said although the source of the killer disease was not clear, all clues were being followed and a team of experts has been despatched to western Kenya for this purpose. He said that due to the seriousness of the disease and the fact that this was the first time the disease was reported in Kenya, the government had promptly sent an SOS to the WHO to help contain the disease. He thanked the WHO for responding so quickly to Kenya's request. [Text] [LD140300 Nairobi Domestic Service in English 1800 GMT 13 Feb 80 LD/EA]

CSO: 5400

NORTHERN AREA NOW FREE OF TSETSE FLY

Kaduna NEW NIGERIAN in English 28 Jan 80 p 11

[Article by Mike Reis]

[Text]

OVER 218,000 square kilometres of land in the northern part of the country, is now free from tsetsefly infection. The area which lies along the boarders of Cameroun Republic, was reclaimed and declared a free zone by the Federal Department of Pest Control, an arm of the Ministry of Agriculture.

Speaking to the New Nigerian on Wednesday the Director of the Pest Control Unit, Dr. Bello Kofar Na'isa, said that various steps, were now being taken to eradicate tsetsefly throughout the country..

He told the New Nigeria that the federal government and the Cameroun Republic were presently carrying out a joint project to see that areas reclaimed were protected from re-infection.

Dr. Bello said that for the successful eradication of the insects, his department has decided to work from the northern boarders of the country and progress to the south.

He said both control and eradication centres have been set-up in strategic places in the north to ensure speedy actiin in places where the flies abound.

According to the director, the control centres are — Bida, Shendam and Gboko, while the eradication centres are — Yola, Zaria Funtua and Yelwa.

Explaining the work of the centres, Dr. Bello said that the control units would handle cases where spontaneous outburst of the flies were reported while the eradication centres would work towards exterminating the flies on a permanent basis.

He said that both land and air spraying would be employed to ensure the success of the scheme.

Already, the director said, his department was making effort to get planes to be used for the operation, adding that the Nigerian Air Force had promised to donate two of its 10 planes to the department.

He said that similar project, now going on with the Cameroun Republic, would be embarked upon with other countries sharing boarders with this country.

The director also disclosed that his department was also planning to extend similar measures on crop infecting pests in the country.

He said that four zones, Maiduguri, Enugu, Ibadan and Kaduna, have been created to handle possible outburst of pest in any part of the country.

Dr. Bello was optimistic that when the department obtained all the necessary amenities to carry out its work, pest actions on both plants and animals, would be drastically reduced in the country.

CSO: 5400

BRIEFS

CHOLERA CASES--An outbreak of cholera has been reported at the university town of Ile-Ife, Oyo State. In a circular signed by the acting director of medical and health services of the university, Dr. S.O. Ayoola, directed that the university community should boil their drinking water. He also instructed them to take special care in the handling of food and called for quick disposal of faeces. Fears were being nursed in students' circles about the deadly disease, because supply of water to some students' areas such as Awolowo Hall, Murtala Mohammed Hall, Mozambique and Angola Halls had been inadequate. Meanwhile, the vice-chancellor, Professor Cyril Onwumechili, had conducted on-the-spot visits to some areas of the university for immediate solution to their problems. However, no student has been affected by the outbreak. [Text] [Lagos DAILY TIMES in English 4 Feb 80 p 5]

CSO: 5400

OVER 150,000 CITY CHILDREN AWAIT IMMUNIZATION

Lahore THE PAKISTAN TIMES in English 29 Jan 80 p 10

[Text]

Arrangements for immunisation of children against six killer diseases were reviewed at a meeting of Expanded Immunisation Programme held at Jinnah Hall on Monday morning. Mian Shuja-ur-Rehman, Lahore Municipal Corporation Mayor, presided.

The LMC Epidemic Control Officer informed the participants that nearly 1.5 lakh Lahore children below two years of age awaited immunisation against the six killer diseases, namely, the tuberculosis, polio, whooping cough tetanus, diphtheria and measles. The civic body was immunising an average 7,000 children against killer diseases every month and expected to immunise all the children by the end of next year. Over 3.5 lakh school children had been administered tuberculosis vaccine and the remaining were being vaccinated by the LMC mobile teams. Efforts to immunise the children had already started showing positive results. No diphtheria case had been reported in Lahore during 1979 and incidence of whooping cough and polio had also decreased considerably. The civic body had also re-designed birth certificates including an advice printed in red to get the children immunised.

Mayor Shuja ur. Rehman told the participants that the civic body had decided to step up its propaganda campaign to motivate the public for immunisation of the children against killer diseases. The civic body will not only utilise the traditional medium of radio, TV and newspaper publicity but also seek the co-operation of the mosque Imams and Khatibs to ensure immunisation of the maximum number of children. Lakhs of letters would also be written to all the voters in the city exhorting them to get their children immunised. Vaccination centres would also be set up in far-flung areas and special attention would be focussed on Shahdara and Kot Lakhpat.

Major General M. I. Burney Director-General, Government of Pakistan Laboratories, informed the participants that a large consignment of immunisation drugs sent by UNICEF had already reached Pakistan and another was due next month. Arrangements were being made to distribute the vaccine in Punjab and other provinces.

The meeting was attended, among others, by Health Department, Social Security, Model Town Society, K. E. Medical College, Fatima Jinnah College and LMC Child specialists.

CSO: 5400

PDRY, UN WORKING JOINTLY TO WIPE OUT CHILDHOOD DISEASES

Aden AL-THAWRI in Arabic 15 Dec 79 pp 4, 13

[Article by 'Ali Yislam Ba-Zurays: "Work Begins on the Comprehensive Inoculation Project"]

[Text] Last Sunday 9 December, Central Committee Member and Public Health Minister Comrade Dr 'Abdallah Ahmad Bakir, accompanied by Comrades Ahmad Hamid Milhi, Central Committee member and head of the Popular Defense Committees Organization, and Taha Ahmad Ghanim, head of the Executive Bureau of the local People's Assembly and Governor of the First Governorate, inaugurated the PDRY's comprehensive immunization project at the headquarters of the 2 March Quarter's Popular Defense Committee in Crater.

The opening celebration was attended by Deputy Public Health Minister Dr 'Awad Salim 'Isa, Resident Coordinator for WHO Programs in Aden Dr 'Umar Imam, Project Director Wahib Muhammad Ja'far, and a number of WHO experts and officials from the Public Health Ministry, the governor's office, and the Popular Defense Committee Organization.

The minister inoculated a number of children to mark the start-up of the project, which aims at inoculating 80 percent of the republic's children against the six childhood diseases over the next 5 years, and also at inoculating 80 percent of pregnant women against tetanus.

These diseases are not really considered a major health problem in the advanced countries, where they have almost been eliminated. However, in many developing countries, including ours, they still constitute a big health, social and economic problem, for they cause 13,200 deaths each year and the incapacitation and impairment of mental faculties of many others.

Therefore, the WHO slogan has been "Comprehensive inoculation against the six childhood diseases for every child in the world by the end of 1990," followed by "Health for everyone by the beginning of 2000." WHO and UNICEF have pledged themselves to cooperate with the Health Ministry in supplying the vaccines and the means of storing and refrigerating them, and in providing the project with the necessary expertise and technology.

Our country was chosen from among a group of vanguard nations for the implementation of these two slogans because of its political and social circumstances, in addition to the patriotism of the citizens in general and their having the opportunity to participate in planning, scheduling and implementation through the local people's assemblies and the various mass organizations. All these factors suggest that these two slogans will be realized on time. The preliminary health care project will assist rural development and the extension of preventive and curative health services to the countryside, so that the project can begin as scheduled at the start of the coming Christian year.

When I met with Director of the Comprehensive Innoculation Project Wahib Muhammad Ja'far, he explained to me many of the aspects which the citizens must understand so that they can help work to achieve these goals. He said, "A detailed program covering the implementation of the project in the First, Second, Third and Fifth Governorates and parts of the Fourth Governorate has been drawn up, according to timetables prepared for this purpose, covering a number of towns and villages according to their population density and total child population.

"As for the other parts of the Fourth Governorate, the islands and the Sixth Governorate, for technical reasons plans for them will be drawn up soon. The various stages of the project have cost a total of 1,044,692 PDRY dinars."

In reply to a question about training personnel, Brother Wahib said that project workers have been trained on various levels and have been able to eradicate smallpox from the country never to return. Workers have been trained in maternity and child care and combatting tuberculosis, in order to arrive at a single program which will facilitate comprehensive inoculation of mothers and children.

Brother Wahib added that health statistics indicate that there are more than 6,000 cases of measles each year among children, resulting in a 3 percent death rate. Therefore, the ministry has added vaccination against this disease as a gift to the children of Democratic Yemen, with 100 percent guaranteed results.

In order to get more technical information about inoculations and how they work in the human body so that it can avoid being stricken by the diseases, I went to WHO Expert Dr 'Ali Idris, who said, "Inoculation is the easiest way to prevent some contagious diseases. A substance called a vaccine is used, and positive results are obtained by introducing the factor causing the disease into the human body, after weakening it so that it loses its ability to cause the disease. The body is provoked into resisting it and forming antibodies so that the bacteria are unable to cause the disease in the inoculated body as long as the antibodies remain. Vaccination gives about 80 to 90 percent immunity."

A brief introduction is needed to some of the symptoms and complications of the six diseases which can be prevented by inoculation.

1. Pulmonary tuberculosis--its most important symptom is a cough with chest pains, perhaps accompanied by a bloody discharge and expectoration, general weakness, a loss of appetite, and a rise in temperature at night. If the person stricken with pulmonary tuberculosis is not treated, the disease may move to his kidneys or bones, causing tuberculosis in these organs, thereby reducing the possibility of curing it.

2. Diphtheria--its symptoms include tonsillitis and pain when swallowing with swelling of the lymph glands located below the ears. If the case is not treated, the patient might die of suffocation, or he might become paralyzed on one side or in the muscles.

3. Whooping cough--the patient complains of a dry cough in the form of painful paroxysms causing difficulty in breathing, followed by deep gulping In most cases, the symptoms are accompanied by deafness and swelling about the eyes.

4. Tetanus--it appears in the form of muscle contractions with a locking of the lower jaw of the mouth and the appearance of a mocking smile on the face of the patient. He seldom escapes death because of the disease's effect on the nervous system and its malignant complications such as pulmonary inflammation and inflammation of the urinary tract.

5. Infantile paralysis--this disease appears with unclear symptoms resembling influenza, and then the sick person is stricken with paralysis. If treatment is neglected, the paralysis remains in more than one limb and sometimes strikes the respiratory or heart muscles, leading to death.

6. Measles--it appears with symptoms resembling a cold with reddening of the eyes and a cough. This is followed by the appearance of the distinctive measles rash. Then there is a phase of scaliness which lasts about a week. If the child is not treated promptly, in many cases this leads to the symptoms of paralysis. It is noteworthy that the measles vaccine is being used for the first time in our country. It is considered the most expensive vaccine to date, for its method of preparation is very complicated and its ingredients are scarce. It has been proven 100 percent effective in those countries which use it.

The project's mobile teams will open temporary mobile centers in all residential quarters and villages which are remote from the permanent centers. The project's success depends on the participation of legal guardians in bringing their children to the vaccination centers and in keeping a vaccination card until the child enrolls in school.

We must remember that the nation needs strong Yemeni men, free of disease and capable of carrying out the economic and social development plans on time, and that our children are our guests and we must treat them well.

8559
CSO: 5400

BRIEFS

TYPHOID DEATH--A refugee on his way home from Zambia has died in Livingstone Hospital of typhoid. A United Nations High Commissioner, Mr Ray Fell, said yesterday: "He travelled to Livingstone on the train from Lusaka last Thursday. He was taken from the transit camp to hospital, where he died on Saturday. "The autopsy findings were known on Monday and confirmed typhoid." The Chief Health Inspector of the Ministry of Health, Mr James Johnston, said: "One case of typhoid is not at all alarming. We have had typhoid all around the country for years." [Text] [Salisbury THE HERALD in English 14 Feb 80 p 3]

ANTHRAX DEATHS RISE--In the 13 months to January 31 this year, 5,814 people contracted anthrax, and 86 of them died. A Ministry of Health spokesman provided the figures yesterday. Last year there were 3,249 cases in the Midlands Province and 46 deaths; in Mashonaland 204 cases and two deaths; and in Matabeleland 1,155 cases and 15 deaths. The total for the calendar year was 4,608 cases and 63 deaths. Last month (January 1980) 860 people in the Midlands contracted the disease and 18 died. In Matabeleland, there were 153 cases and one death; and in Mashonaland 168 cases and four deaths. Victoria Province featured for the first time in the anthrax statistics, the spokesman said. There were 25 cases last month and no deaths. "Anthrax is a peculiar disease," he said. "You think it is dying down in some areas--that you have got on top of it then it breaks out again." No figures are available for cattle deaths from anthrax in the tribal areas because of the security situation; but it is estimated that 30 to 50 percent of African herds have died in the worst affected areas. [Text] [Salisbury THE HERALD in English 14 Feb 80 p 13]

FIFTY TREATED FOR ANTHRAX--About 50 people with anthrax were admitted to the Beatrice Road hospital, Salisbury, between October and December, the Medical Officer of Health, Dr Tony Davies, said in his quarterly report. All the cases appeared to have originated outside the city, and Dr Davies said there had been active cooperation with the Ministry of Health to try to reduce the number of patients seeking treatment within the city. The measles epidemic waned during the last quarter of 1979. Nearly 2500 cases were admitted during the year to the Beatrice Road hospital, of which 147 died. Dr Davies said figures being prepared would show the City Health Department's measles vaccination campaign was highly effective and that the failure rate among vaccinated children was less than one percent. [Text] [Salisbury THE HERALD in English 12 Feb 80 p 4]

CSO: 5400

BRIEFS

TUBERCULOSIS INCIDENCE, DEATHS--In Senegal, 3,000 cases of tuberculosis are discovered annually, of which more than 2,000 cases are fatal. [Excerpt] [Dakar LE SOLEIL in French 21 Feb 80 p 6]

CSO: 4400

CHOLERA REPORTED IN NORTH CENTRAL PROVINCES, BANGKOK

North Central Provinces

BK300359 Bangkok BANGKOK POST in English 30 Jan 80 p 3 BK]

[Text] Cholera has broken out in Nakhon Sawan and Kamphaeng Phet provinces so far killing three persons in the past few days. Twenty-nine others have been admitted to the provincial hospital, Nakon Sawan Governor Pramoon Chantrachamnong said yesterday.

He said 32 cholera victims have been treated at Sawan Prachalak Hospital since Monday. Three of them have died as their condition was critical when brought to the hospital.

The three were from Lam Mae Ping village in Khanu Woralaksaburi District of adjacent Kamphaeng Phet Province.

Doctors said the virus found in the dead was of the El Tor Ogawa Type found in Asia. It is very deadly if medical treatment is not given in time.

Deputy Director-General of the Contagious Diseases Control Department Dr Nadda Sriyaphai said that the epidemic normally occurs before the approach of the dry season.

He said his department has sent health officials to warn the people to take care of their sanitation and to give vaccinations as a preventive measure.

[The Bangkok NATION REVIEW in English on 30 January, page 3, reports on the cholera outbreak, noting that "over 50 people have been admitted to hospitals" for severe, symptomatic diarrhoea, citing Chief of the Communicable Disease Division Dr Pattaraporn Chumnarnkij. The article says that "more than 20 people" were admitted to the provincial hospital in Nakhon Sawan for symptomatic diarrhea and "two of them reportedly died." In addition, says NATION REVIEW, in neighboring Kampaengpetch "about 30 villagers, mainly from the Kanavoralak District, were also admitted."]

Bangkok, Nationwide Cholera Increase

BK310213 Bangkok BANGKOK POST in English 31 Jan 80 pp 1, 3 BK

[Excerpts] The Bangkok Metropolitan Administration yesterday urged city residents to ensure that the food they eat is properly cooked and water boiled in order to stave off the possibility of contracting cholera.

Seventy-seven cholera patients have been admitted to Bangkok hospitals since the beginning of this year, two of whom died though there is no fear of an epidemic, Dr Pralom Sakuntanak, head of the BMA's communicable diseases divsion said yesterday.

According to the Health Ministry, over 250 cases of cholera have been reported in Thailand so far this year with eight deaths. Most of the cases have been in the central region.

The ministry said the cholera outbreak was the result of a shortage of water for sanitation. The shortage may persist over the enxt few months because last year's drought has lowered the water levels in the country's reservoir.

The BMA's Dr Pralom said that last year, the Bangkok area reported 522 cases or cholera, 11 of whom died. The number of cases reported so far this year is proportionately much larger, she added.

Most of this year's Bangkok cases have been reported in the Bang Khen area--22 cases, one death--with a few in the Phra Kanong, Ratchaburana and Dusit areas, she said.

CSO: 5400

BRIEFS

CHOLERA INCREASE--The Bangkok Metropolitan Administration [BMA] has launched an anticholera campaign in Bangkok, BMA's deputy governor, Maj-Gen Doctor Saritwongse Wongtuaytong, said yesterday. He said mobile medical units had been sent to give vaccinations to schoolchildren at their schools and to the public in general. The BMA had also sent officials to inspect foodshops and foodstalls to ensure that they were clean and hygienic. Doctor Saritwongse said that more than 100 cases of cholera had been reported in Bangkok, with one death, and it was expected that the number of cases would increase thi. month. So far, cholera has been reported in 27 provinces throughout the country and a total of 12 persons have died of the disease, according to a report by the Communicable Diseases Control Department. The report said the number of patients had increased sharply early this week. It said that although the number of cholera patients this year was "small," compared with the same period last year, Bangkok was still the province most affected by the epidemic. [Bangkok BANGKOK WORLD in English 6 Feb 80 p 3 BK]

CSO: 5400

CHOLERA CLAIMS 32 LIVES IN KARAMOJA

Kampala UGANDA TIMES in English 31 Jan 80 p 8

[Text] An outbreak of cholera in Kotido District has claimed 32 lives and it is feared more will die, as the situation continues to worsen.

Reports from Kotido reaching Moroto town say cholera has hit the Kacheri, Kathile and Karenga villages.

The outbreak coupled with prolonged drought and famine have forced the people to abandon their homes. This has added to the difficulty of bringing the disease under control.

A traveller reaching Moroto from Kotido told the "Uganda Times" "The ministry of health has already sent there staff to contain the disease." He, however, doubted the effectiveness of the vaccination campaign because the health staff were confronted with many difficulties such as transport.

"There are also problems related to lack of water, food, fuel and shelter," he added.

The alarming situation has been attributed to the prolonged drought which has dried up all rivers and vegetation. Karamoja has never had rain for the last two years, a missionary said, adding "the authorities must focus attention on the disaster which has hit the Karamojong."

Apart from the cholera threat many people and domestic animals are starving to death. "Scarcity of water and food has forced people to wander about the bushes in the hope of finding a drop of water or food," a refugee who fled from Dodoth said.

The people of Moroto appealed to the government and international aid organisations to come to their rescue.

CSO: 5400

LACK OF SANITATION, WATER CAUSED ENTEROCOLITIS EPIDEMIC

Montevideo EL PAIS in Spanish 8 Jan 80 p 7

[Text] The head of the Rosario Public Health Auxiliary Center, Dr Mario A. Plavan, in a letter addressed to the EL PAIS correspondent in that colonial city, confirmed the enterocolitis epidemic caused by the lack of water supplied by the OSE [State Board of Sanitation], as our newspaper reported.

In his letter, the official retorts to denials made by the OSE and published in other news organs.

Dr Plavan explains that he never attributed the epidemic "to the drinking water that was supplied (when it is supplied) by OSE; and therefore the denials made by top-ranking heads of that entity and published in the newspaper EL DIA on 5 January are not pertinent. As a physician, I think that I have sufficient judgment not to make such a ridiculous, gratuitous accusation."

The head of the Public Health Center subsequently adds: "We did say, in the telegram in question, 'situation alarming, major enterocolitis epidemic,' and we reaffirm it flatly. What else could be said about a city which lacks drinking water from OSE during most of the day, and which is therefore deprived of making use, or even misuse of water for cleaning surroundings and food? This is, indeed, the latent cause of the outbreak of an epidemic at any time, not only of the classic summer enterocolitis, but also of other diseases transmitted by water; inasmuch as the population is forced to replace OSE's meager drinking water with other water from cisterns, shallow wells and creeks, particularly in a city which lacks sanitation (we still have the archaic system of cesspools)."

'OSE's Responsibility'

In the opinion of Dr Plavan, "The problem of the water shortage in Rosario has been present and becoming worse for no less than 5 years, and an attempt is being made to solve it (according to statements made by OSE officials in the newspaper EL DIA on 5 January 1980, with short and long-term

measures). Now we think that the solution cannot come from short, medium or long-term measures, but rather from immediate measures. What are they? Let OSE say."

He adds: "Despite the fact that a great many studies have been made, the city of Rosario still lacks sanitation; and, according to the data, there are no chances of obtaining it over the short, medium or long term. If all this is not enough to cause alarm, and if the ones responsible because of their position are not concerned about bringing up the problem to the pertinent authority, and have not reported anything to anyone, as they have tried to convince me that they have, let this be made quite clear, and I am addressing those concerned with the greatest respect, I really do not see how I can meet my obligation in the task that I am performing."

Finally, in his letter, Dr Plavan expresses the view that, with this explanation "the public should judge and arrive at an opinion."

2909
CSO: 5400

DINARP REPORTS ON FOOD, HEALTH MATTERS AT LIBERTAD PRISON

Montevideo EL PAIS in Spanish 8 Jan 80 pp 1, 8

[Excerpts] Yesterday the government issued an official communique through its authorized offices wherein there is a denial of preposterous rumors of an epidemic of leprosy and tuberculosis among the inmates of the No 1 Prison Establishment; and a detailed account is given of the prison treatment being given to the insurrectionists. It also states that the intention of those spreading such rumors outside is surely to foster a riot among the inmates, in a search for new "martyrs" for the international campaign.

As part of the international campaign to discredit Uruguay, during the past month an increase has been discovered in the attacks aimed at the No 1 Military Prison Establishment (Libertad Prison). For this reason, the National Public Relations Bureau (DINARP) deems it fitting to publish the following information, so as to counteract, in the manner that it considers feasible, the untruths that the various news media (out of ignorance or deliberately) have been disseminating about our country.

The No 1 Military Prison Establishment is a model of its kind. It adheres to the most modern standards of penal science, attempting to convert and maintain the establishment as a genuine retreat for the moral transformation and social rehabilitation of the criminal.

The Food

With regard to this matter of food, which has been given particular stress in the international campaign against the Libertad Prison establishment, it should be noted that there is a basic weekly menu prepared by the group of dieticians from the Armed Forces Health Service, based on the calories required for the life style that prevails in the establishment. So, the dishes that are prepared are essentially healthy and balanced. Each inmate receives every day: hot water for drinking mate; a breakfast consisting of coffee with milk and two biscuits; for lunch, vegetable soup, noodles, meat, a main dish, bread and dessert (fruit or sweets). In the evening, there is again hot water for mate and a dinner similar to the luncheon.

Meat and Diets

The inmates who have digestive problems are provided with a dietary regimen which may consist mainly of rice, eggs, grilled meat or croquettes without salt, unsalted crackers, cream or milk, cheese, quince jam or fruit, depending on the doctor's recommendations.

Despite the restrictions on meat consumption charged abroad, it may be claimed that the per capita consumption is higher than the national average; which is saying a great deal, because Uruguay ranks second in the world for meat consumption in proportion to its inhabitants, immediately after Argentina.

Insofar as the state of health among the prison population is concerned, there was a recent charge in certain newspapers in France and the Netherlands (with a synchronization and similarity of terms which make it obvious that the source of the information was the same in both cases) concerning epidemics of leprosy and tuberculosis in the establishment. For this reason, donations of "white, disinfected" sheets are being received in those countries to "try to stop those epidemics."

Those of us who are familiar with Uruguay and the Uruguayans realize the infamy of such rumors. In this instance, as in other previous ones, the subversive action abroad is based on some isolated, real fact used to magnify what is happening in the country and to downgrade the national image. At the Military Prison Establishment, some evidence was discovered in one inmate leading to the diagnosis of neuritis hanseniana in a non-contagious stage. As a precautionary measure, and while he was treated by the specialists of the Armed Forces Central Hospital, he was kept in a state of relative isolation at the establishment, consiting of living alone in a cell and having his personal utensils, but leading a normal life. Last year, three cases of pulmonary BK were also discovered. In one case, after it was controlled and treated with the triple plan, all the bacilloscopies proved negative; the second case was controlled and treated for inactive tuberculosis; and the third one is still being controlled and treated by the specialists.

The Medical Service

The medical service at the establishment consists of doctors from the Military Health Service and specialists from the Armed Forces Health Service, but also includes physicians who are inmates providing primary care and serving as specialists in many instances, even performing minor surgery. In the establishments' main building there is one inmate physician for every 100 prisoners; and, in each sector of the barracks (with 40 inmates) there is another inmate physician. There is also a psychiatrist and a psychologist to treat cases in their specialties; and many polyclinics are in operation, each with one specialty. At the Armed Forces Central Hospital, cases which require a specialist that is not included primarily

in the establishment are treated. In addition, patients are confined there, and general surgery is also performed. The medical service operates on a permanent basis, with a chief physician on duty 24 hours at the establishment, and another one on call in the city of Montevideo, in case of emergency. Two dentists treat the inmates on a daily basis. The stock of medicines provided by the Armed Forces Health Service is adequate and sufficient.

The Visits

The inmates' contacts with their families take place in two ways: personal visits and correspondence. The visits made by adults are made in booths located within the establishment, and those of children under 12 years of age are made in a playground, where the inmate is in direct contact with the child. Professional people may visit the prisoners daily, in booths with a greater degree of privacy.

The correspondence allows for the reception or mailing of up to five postal type photos in each envelope.

Each inmate is also allowed to receive books and magazines, and to receive or send packages or postal orders which may contain food and items used by the inmates in their work on handicrafts. The handicraft items made by the prisoners are, in turn, allowed to be sent to the family members, with no limits on quantity; serving in many cases to support their families. This arrangement was promoted by the prison authorities.

Status of Cases

Insofar as the number of insurrectionists being held is concerned, a subject on which the most variegated figures are circulating in the world, as of 22 December 1979 there were 1,479 prisoners in the entire country, of whom 1,253 were men and 226 women, and among whom between 20 and 25 foreigners must be counted. Of that total, 92.5 percent of the cases have already been tried, and the respective sentences handed down. Only the remaining 7.5 percent (consisting of 111 persons) are still being held with the status of indicted individuals at the disposal of the court.

The total number of insurrectionists tried since 1972 was 4,746, and of that number 68 percent (3,267 cases) have already been released. As the years elapse and the sentences are served, the number of insurrectionists being released becomes increasingly larger. Moreover, the courts are granting an early release to many inmates; and, contrary to what has been published by many news media in the world, in no instance has the lack of money prevented any prisoner from being released. This could only happen if he did not have enough money to post the bail required by the judge in the case of any early release, but thus far this has never happened to the inmates of the Military Prison Establishment.

The Final Intention

The foregoing is a brief summary of the evidence that is available to respond to the current campaigns of defamation against our country's prison system.

These campaigns, which even mention death threats to prisoners by the guards and which "warn" against "the physical elimination of certain prisoners who are considered dangerous," prompting certain institutions to convey to the Uruguayan Government their "concern over this threat of massacring prisoners," are surely aimed at justifying a riot inside the No 1 Military Prison Establishment. Despite the controls that exist in the press material and correspondence which reaches the inmates, through visits from relatives and friends the prisoners are cognizant of the presence of these campaigns which are circulating in the news media throughout the world; and it is not unlikely that some of the ringleaders being held are heading the movement for rebellion that would warrant repressive measures which would result in victims. Despite the fact that the guards responsible for controlling the security zone are usually unarmed, a riot would obviously have to be put down severely, possibly causing a toll of victims who would become the martyrs that the subversives need at the times when their arguments of torture, killings disappearances, etc., become outdated. This search for martyrs to redouble their attacks against the country appears to be the main objective of the present international campaign; and hence it has become necessary to take steps to explain their purposes, so as to expose to the public the intention that is guiding the campaign.

Annex on Health Care

A. During 1979, monthly visits were made by H.C.FF.AA. [Armed Forces Central Hospital] specialists in ophthalmology, otorhinolaryngology and cardiology. Cases were dealt with wherein there were patients with pathologies to be treated or controlled, broken down as follows:

Ophthalmology, 330 treated; otorhinolaryngology, 254 treated; cardiology, 102 treated.

There was also monthly care provided by experts in electrocardiography, who took a total of 201 electrocardiograms.

B. Number of consultations in polyclinics: Medical polyclinic, 793; surgery and minor surgery polyclinic, 881; dermatological polyclinic, 394; traumatology polyclinic, 1,086; cardiology polyclinic, 480; otorhinolaryngology polyclinic, 254; ophthalmology polyclinic, 330. Total consultations held: 4,218.

C. Dental Care

Extractions, 412; permanent fillings, 3,390; temporary fillings, 260; endodontia, 464; prostheses, 1,566; consultations and prophylaxis, 477; total treatments: 4,569.

D. During 1979, a total of 1,566 laboratory tests were made for the personnel incarcerated in the establishment, broken down as follows: urine analysis, 423; analysis of fecal matter, 84; blood analysis, 893; bacteriological analysis, 56; mycological analysis, 30; liver function study, 44; other, 34.

E. Work done in the optics shop: Including inspections and repairs, a total of 496 consultations were made in the establishment's optics shop.

F. Paraclinical Tests and Consultations at the H.C.FF.AA.: The coordination of the tests and consultations held at the H.C.FF.AA. was done through the weekly visit of the military physician to the hospital.

The following consultations were held: Surgical polyclinic, 1; ophthalmology polyclinic, 12; otorhinolaryngology polyclinic, 6; neurological polyclinic, 9; urology polyclinic, 9; dental polyclinic, 4; endocrinology polyclinic, 12; gastroenterology polyclinic, 6; traumatology polyclinic, 2; Pneumology polyclinic, 19; cardiology polyclinic, 4; rheumatology polyclinic, 2; dermatology polyclinic, 5; audiograms, 8; electroencephalograms, 10; radiological studies, 107; plastic surgery polyclinic, 8; oncology polyclinic, 1; pathological anatomy studies, 21; laboratory analysis, 118; bacteriological tests, 47; other polyclinics, 37; pending radiological studies, 90; total consultations and radiological studies made at the H.C.FF.AA., 448.

G. Confinements

During 1979, 110 patients were confined at the H.C.FF.AA. for study and treatment. The reasons for them are broken down as follows:

Psychiatric causes, 9; medical causes, 63; surgical causes, 28; traumatological causes, 10.

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BRIEFS

ANTIPOLIO MEASURES--The public health minister, Dr Antonio Canellas, stated: "There is no reason for the population to be alarmed at the polio epidemic that Brazil is experiencing, because the health situation in our country is very good." He gave a reminder that, in Uruguay, the immunological campaign is carried out on a permanent basis, and hence the overall protection amounts to 85 percent. Dr Canellas said that this percentage affords us a high rate of security, which stands at a level of 80 percent worldwide. However, the aforementioned state secretary gave assurance that the ministry has enough vaccines and other resources to cope with any contingency; and, therefore, the population should not be alarmed over the reports from Brazil. Statements agreeing with those of Dr Canellas were also made in our city by the general director of public health, Dr Juan J. Bacigalupi. That official noted that the immunization coverage is very extensive (85 percent inoculated), and that when an isolated case is reported it is among that 15 percent of individuals who have failed to take the proper precautions. He added that it is necessary to keep the shots up to date, not only for traveling to Brazil, but to any other country; because our country is a veritable "island," and we must prevent any kind of contamination. He stressed, addressing those who must have a booster of their antipolio immunization, that inoculations are still being given in all public health centers throughout the country, and by the benefit societies in our city. This service will be operated normally all year long. The National Academy of Medicine has also made wise recommendations. Authorities associated with the entity recommend that everyone under age 20 traveling to Brazil have a booster inoculation, and that this measure should be adopted particularly in the case of children under 12 years old, because they have fewer defenses against the implacable virus than adults do. [Excerpts] [Montevideo EL PAIS in Spanish 12 Jan 80 p 10] 2909

CSO: 5400

BRIEFS

LEPROSY STATISTICS--Kinshasa--Zaire has more than 400,000 lepers (13 percent of the population), the Zairian state commissioner for public health, Dr Kalume Lushiku Mulumba disclosed in Kinshasa on Saturday. [Excerpt] [Bissau NO PINTCHA in Portuguese 5 Feb 80 p 7]

FLU EPIDEMIC--Seasonal or Asian flu, called by the population "100 kilograms" or "Kita-Mata," is currently raging in Bas-Fleuve Sub-Region, Bas-Zaire Region. Symptoms of this flu are certain aches, especially pain in the back, neck, or limbs which become heavier and heavier. According to authorized sources from the regional health inspectorate at Matadi, it is understood that this temporary illness is caused by the change of season. [Text] [Kinshasa ELIMA in French 22 Jan 80 pp 1, 7]

CSO: 5400

HELP CHOLERA TEAM KUNDA URGES PUBLIC

Lusaka TIMES OF ZAMBIA in English 1 Feb 80 p 1

[Text]

MINISTER of Health, Mr Rajah . Kunda yesterday appealed to the public to co-operate with the medical team in Northern Province to help contain the cholera outbreak.

Mr Kunda said that the medical team sent to Kaputa was containing the situation, adding that in order to halt the spread of the epidemic, the district had been sealed off.

"There is no contact with other areas. Besides, some of the schools in the area have been closed," he said.

Mr Kunda, who has just returned from Luapula, said the province was not affected by the epidemic.

The minister said while in the province, he visited various places and addressed medical staff.

He urged the medical staff to be devoted to duty, to love the sick and to develop a better understanding and relationship with the public and the sick.

The minister said he urged expatriate doctors to remember that Zambia would need their services for a long time to come.

He said he was impressed with services provided by some of the mission hospitals, like Mambilima hospital.

He said the hospital was an excellent example of mission hospitals.

"Equally, there are some mission hospitals which are badly managed. An example is Chipili rural health centre," he said.

Orders

Mr Kunda said he had given orders that missionaries responsible for the rural health centres must give him an account of the grant given to them.

He also visited Mbereshi mission hospital and said that the Government was taking it over as a result of the sad state in which missionaries had left it.

The minister said he was concerned with the increasing break-ins of health institutions in the province.

"A lot of medicine and equipment from the clinics are being stolen and sold in the clinics belonging to our neighbouring countries.

"Since we cannot fence every clinic and health centre in the area due to financial problems, our concern is greater," Mr Kunda said.

CSO: 5400

BRIEFS

FOOT-AND-MOUTH DISEASE MEASURES--The government has ordered a guarantine of animals in the Bogota savanna and the (Huate) and (Quinquiquiram) valleys to eliminate foot and mouth disease. As part of an ambitious plan, the Agriculture Ministry has prohibited the gathering of cattle, hogs and sheep in these areas, has banned storage of animal products and byproducts and has forbidden the holding of fairs and expositions. Under the plan, vaccinations will be scheduled for January, February and May. The local cattlemen have stated their support for the plan. [Bogota Cadena Radial Super in Spanish 2330 GMT 25 Jan 80 PA]

CSO: 5400

AUTHORITIES MOVE TO HALT SPREAD OF AFRICAN SWINE FEVER

FL152115 Kingston Domestic Service in English 2030 GMT 15 Feb 80 FL

[Text] A state of hygiene emergency has been declared in the province of Santiago de Cuba in Cuba following the outbreak of African swine fever in the neighboring province of Guantanamo. Drastic measures in accordance with the laws have been launched to prevent the spreading of the disease. All pigs in the province will be vaccinated against cholera under the emergency program. (?Porks) transferred from one place to another will be concentrated and all pigs within 5 kilometers of the border of Santiago are to be slaughtered. A strict hygiene emergency is also emplaced at all air, maritime and land traffic points in the province and inspections centers have been set up in several regions of the countryside.

CSO: 5400

BRIEFS

SWINE FEVER RESOLUTION ISSUED--The Matanzas Province Veterinary Medicine Institute has issued resolution No 6 concerning the prevention of swine fever, given the outbreak of the fever in some parts of the eastern territory. The resolution calls for hog breeding in the hands of private concerns whether on individual or state-owned land to be eliminated from population centers and surroundings because disease may break out owing to their poor hygiene and sanitary conditions and the possibility that their owners may eat the meat from those hogs. [FL192015 Matanzas Domestic Service in Spanish 1700 GMT 19 Feb 80 FL]

CSO: 5400

BRIEFS

GARISSA DISTRICT TRYPANOSOMIASIS THREAT--The Garissa District veterinary officer, Dr D.N. Kiarie, has said that trypanosomiasis disease is still the main threat to livestock development in the district. [Text] [Nairobi DAILY NATION in English 5 Feb 80 p 5]

CSO: 5400

DISPOSAL PITS TO CONTROL CHICKEN DISEASE

Karachi MORNING NEWS in English 8 Feb 80 p 5

[Text] Dr Yahya Mohammad Essa, FAO pathological expert associated with the Poultry Research Institute, Karachi, has advised the poultry farmers to build disposal pits on their farms to control 'Ranikhet' disease among chicken.

He was speaking at a lecture programme organised on Wednesday by the Karachi Poultry Producers Trade Group.

He said that the dead birds should be immediately placed in the disposal pit so that other healthy birds were not affected.

He said the pit should be fully covered, except for a small hole to put the bird in the pit. The hole should have an air tight cover so that the germs do not reach the remaining birds.

The 'ranikhet' disease (New Castle disease) has been killing lakhs of birds every winter season. This season more than two lakh birds have been killed.

Dr Essa also replied to a number of questions put to him by the participants.

CSO: 5400

BRIEFS

PARALYTIC RABIES OUTBREAK--Over 300 head of cattle have died as a result of an outbreak of paralytic rabies discovered in the southern sector of southern Aragua. An Agriculture Ministry official said the disease, which is transmitted by bats, could be controlled within 2 months by vaccinations. [PA111337 Caracas Radio Rumbos in Spanish 1530 GMT 6 Feb 80 PA]

CSO: 5400

ARMY WORMS REPORTEDLY SPREAD IN TANZANIA-KENYA

Nairobi DAILY NATION in English 5 Feb 80 p 3

[Text] WANANCHI, especially farmers have been urged to be on the lookout for and report any appearance of army worms.

The warning was issued yesterday in a Press statement from the Government's Agricultural and Information Centre, Nairobi, in the wake of reports about widespread invasion by army worms in central Tanzania.

The statement expressed fear that with the prevailing weather conditions in Kenya, "it is very likely that the offspringing of these worms will invade Kenya in the near future".

The army worms attack mainly cereal crops and pastures. They do not feed on trees, vegetables or any of the broad-leafed crops.

They are most dangerous when they group together in large numbers. They eat avidly and can destroy thousands of acres of cereal crops and pastures within a short period and can easily cause famine.

Last week, a spokesman of the Agricultural Information Centre was reported to have said army worms had already been found in the Taita-Taveta area, Kericho, Laikipia and parts of Western and Nyanza provinces, "but only on a small scale".

The centre has appealed to wananchi to report any army worm sightings promptly to either the nearest agricultural office, Army Worm Control Unit (telephone Kikuyu 2121), Desert Control Unit, Wilson Airport, or to the nearest administration office — chief's, DO's or DC's office.

While reporting, people are requested to give the area, date/time when the worms were first seen, and their colour and size. Where possible, send about 100 caterpillars in a bottle submerged in petrol to: P.O. Box 30148, Nairobi.

CSO: 5400

DISEASE HITS CITRUS PLANTATIONS; GOVERNMENT BLAMED

Canker, Drought Affect Crops

Rio de Janeiro O GLOBO in Portuguese 26 Dec 79 p 14

[Text] Riberao Preto (O GLOBO)--Experts are discovering focuses of citrus canker in the Monte Alto and Candido Rodrigues municipalities. However, up to now, no information has been released, at least officialy, that the disease might have affected the orange orchards responsible for 61 percent of the domestic production and for 90 percent of the processing capacity (concentrated juice). However, experts of the area agricultural division foresee social problems developing in the area due to the spread of the citrus disease, a concern already affecting mayors, council members and growers' associations.

Meanwhile, the Ribeirao Preto area agricultural division admits that the intensive rains of the past few days have improved ths situation of the rice, cotton and soybean crops, while corn is still suffering from the effects of the November drought. Regarding coffee, the crop looks only average and yields should not exceed 10 processed bags per 1000 plants, while 70 percent of the last crop is still being held by the producer.

Eradication of Lemon Trees

Rio de Janeiro O GLOBO in Portuguese 28 Dec 79 p 23

[Text] Sao Paulo (O GLOBO)--"Coexistence with citric canker is impossible, and the official policy of the government is eradication, which, in the past, however, was not carried out consistently and firmly in Parana and Mato Grosso do Sul. Everything indicates that the disease was introduced into the Sao Paulo citrus area by cereal transports from Parana and Mato Grosso."

These statements were made by secretary of agriculture of the State of Sao Paulo, Eduardo Pereira de Carvalho, as he met with over 350 citrus producters in Monte Alto, in the Sao Paulo citrus area, after having flown over the area of citron orchards affected by citrus canker.

The secretary dismissed the possibility of indemnization to the producers whose orchards will be destroyed should focuses of the citrus disease be found. However, the producers may receive help through special credits and bank exemptions.

Eduardo de Carvalho announced that the federal government has already allocated 915 million cruzeiros to the National Campaign to Eradicate Citrus Canker and he believes that a campaign can now be carried out to actually eliminate citrus canker.

Government Blamed for Canker

Sao Paulo FOLHA DE SAO PAULO in Portuguese 15 Dec 79 p 18

[Text] Limeira (From our correspondent)--Eduardo Pereira de Carvalho, secretary of agriculture of the State [of Sao Paulo] yesterday blamed the federal government for the surge of citrus canker (disease affecting citrus fruits) in the "noble" part of the state as well, between Limeira and Barretos, which is the largest producer of oranges and juice for export. Eduardo Carvalho made this accusation yesterday, as he participated in the 2nd Meeting of Administrators, which closed at the Experimental Citrus Center of Limeira.

Confirming reports that have been presented by various growers for years, the secretary said:

"If there is someone guilty in all this, it is the federal government, and the control posts at the border will not do away with it," adding that a national campaign is required, since, up to now, "the problem has not been faced seriously."

Carlos Prudente Correa, president of Associtrus, the Sao Paulo Association of Citrus Growers, noted that citrus growers have been alerting the authorities to the seriousness of the problem for 10 years--"with no success."

Nevertheless, the secretary of agriculture reassured the growers by announcing that a series of measures aimed at fighting the citrus disease will be implemented, involving about 7,000 persons.

Statistical data reveal that Brazil is the largest producer/exporter of concentrated orange juice. This year alone, this item will produce an income of about 400 million dollars. Also, 90 percent of concentrated citrus juices come from raw material provided by the "noble" area of Sao Paulo.

Experts of the Biological Institute first thought the disease now detected in this area was cancrose (which does not affect orange trees). However, Secretary Eduardo Pereira de Carvalho himself dispelled the doubts, stating

emphatically: "It is indeed citrus canker, pure, Type A and of the worst possible type." He added: "This is too serious a problem to joke about."

The CATI (Coordenadoria de Assistencia Tecnica Integral), Full Technical Service Coordinating Office of the State Secretariat Agriculture initiated the coordination of an emergency program to eradicate citrus canker. The secretary appealed to the growers to immediately report all suspicious cases to the authorities. At the same time, representatives of Fundecitros-Citrus-Growing Defense Fund, a processors' association, offered the authorities the available and necessary resources to fight and to prevent the disease.

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CSO: 5400

CANKER HITS SAO PAULO CITRUS PLANTS; EXPORTS SUSPENDED

Climate of Secrecy

Sao Paulo O E[illegible]O DE SAO PAULO in Portuguese 20 Jan 80 p 42

[Text] Fear [illegible]crecy and an undisguisable climate of tension surround a threat which [illegible] advancing on the orchards of the state: citrus canker. The reports, in the form of odd directives and warnings, do not give a complete picture of the situation, but scientists themselves have said that two municipios are contaminated and that the disease could spread throughout the region, including Bebedouro, not only threatening Brazil's position as the world's major exporter of concentrated orange juice, but carrying a much larger danger. The president of the Sao Paulo Citrus Growers Association has admitted it could mean the end of citrus farming in the state. The climate of secrecy surrounding the matter was apparent yesterday in Taquaritinga, at the meeting of technicians charged with combating the disease. It was a private meeting, but ESTADO covered it. It was there that one of the project coordinators stressed the need to instruct the teams to be particularly cautious in their contacts with reporters, "who are dangerous because they are persistent, and end up writing things they shouldn't." One of the participants was particularly concerned about repercussions among the importers of Brazilian citrus products, while another declared that "all the publicity to date has aimed to set the state of Sao Paulo against Parana." During the meeting, it was noted that the agriculture secretary has expressly requested "maximum commitment to eradication of the disease." According to the speaker: "Anyone who fails in this runs the risk of losing his job."

Diseased Fruit Reaches Wholesaler, Could Infect Other Areas

The danger of citrus canker has not passed. In a closed meeting at the House of Agriculture in Taquiritinga, technicians charged with eradicating the disease attacking Sao Paulo's citrus groves warned that although foci have been confirmed in only two municipios, "there could be canker in other regions, even in Bebedoura, the major citrus-producing area."

Agriculture Secretariat teams still do not know the real situation, although studies have indicated that large quantities of contaminated fruit are being

marketed in the CEAGESP [Wholesale and General Warehouses of Sao Paulo] in Sao Paulo. There is no danger to humans, but the shipments of contaminated fruit could carry the disease to other areas.

Among citrus growers, there is already a climate of dispair, and there is insistent talk that there are isolated citrus canker foci throughout the region of Bebedouro, which is responsible for the production of 90 percent of the concentrated orange juice exported by Brazil, and which brought in $400 million in 1979 alone.

The Regional Agriculture Divisions have formed emergency squads which can be activated at any moment. According to the president of the Sao Paulo Citrus Growers Association: "This is the last chance to control citrus canker."

Producers from Limeira to Barretos go a little farther: "If the disease is not controlled immediately, the end is approaching for citrus farming in Sao Paulo."

In their closed meeting in Taquaritinga, technicians said that one of the obstacles in controlling the disease is that the fruit is being marketed. To date, there is no apparent inspection to prevent the transport of fruits and seedling from interdicted municipios, although most of the producers are aware of the state government's directive and have ceased marketing activities altogether. Equally, the so-called "trading posts" for fruit buyers and distributers are respecting the official order, but this has not prevented dozens of trucks from carrying fruit out of the contaminated zone. Most of them move before daylight, to avoid being seen by the agronomists.

Extent

"It is vital and urgent to know how far the disease has spread in the citrus growing zone," states a document circulated among specialists in the Secretariat of Agriculture and distributed during the Taquaritinga meeting. The text states that "in the case of the present outbreak in the State of Sao Paulo, the extent of the affected area is unknown," and stresses that "it is vitally important to prevent the spread of the disease to areas that have not been contaminated yet."

The Biological Institute of Sao Paulo is maintaining shifts of technicians in the affected areas to issue to needed reports for the prompt destruction of the plants. In the last 3 days, an average of 15 foci per day have been reported. The Biological Institute maintains understandings with the processing industries, establishing standards to prevent contamination during the processing phase. In addition, in conjunction with the Agronomy Institute of Campinas, the institute is studying the behavior of citrus strains that are resistant to attack by the bacterium "anthomonas citri," which causes citrus canker.

Nonetheless, Carlos Prudente Correa, president of the Sao Paulo Citrus Growers Association, declares that "the threat is latent," and criticizes

the bureaucracy, which he says is hampering the dynamization of the technicians'work in the areas under supervision for citrus canker.

"It is hard [for them] to believe that the only way and the last chance to control citrus canker within the export zone is to promote a swift and effective eradication of foci," he said. "The bureaucrats at CATI [Office of Coordination of General Technical Assistance] must be convinced that the problem exists. It is not enough that the secretary wants to solve it. The lines of communication between the government and the producers have almost been broken, because there is a veritable mafia within CATI, and it is slowing down the entire process."

Sector Supports 20,000

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 20 Jan 80 p 42

[Text] Confirmation of citrus canker in Monte Alto and Candido Rodrigues was enough to bring up serious social problems. The biggest difficulty is not among the producers, because most of them diversify their crops (they also grow rice, sugarcane, cassava), but about 20,000 people are basically dependent on the marketing of citrus fruits. These people are migrant workers during the harvest and are also employed in the 58 "trading posts" in the two municipios. They handle and pack the product, and deliver it to the industries and the distribution centers for the domestic market.

Contrary to what Agriculture Secretariat technicians feared, there has not been much resistance to destruction of the trees, except in a few cases of farmers with close ties to the land. At first, the growers did not believe the disease was there. In an agitated meeting in Candido Rodrigues, they called it an "economic ploy," intended to benefit the sugar and alcohol industries, which are interested in expanded production of sugarcane in the region. This idea was soon dismissed when they heard the results of the Biological Institute analyses. Although the growers have taken a financial loss with little chance of new investments, they are already making plans to plant other crops for the next harvest.

Repercussions

In the municipio of Fernando Prestes, Councilman Orlando Zaniboni, who has been a citrus farmer for 8 years, blamed the citrus canker on "the lack of control over the arrival of fruit from other regions." Mayor Virgilio Canalle is concerned about the repercussions of a possible interdiction of sales in his locale. "This would mean ruin," he said, "because citrus farming and marketing are the mainstay of the local economy." Other threatened municipios are living in the same climate of fear.

Exports

The citrus groves in the state of Sao Paulo comprise about 110 million plants, valued at 2 billion cruzeiros. Annually, they produce about 160 million cases

of citrus fruits, worth 800 million cruzeiros. Almost 2 million cases of fresh fruit and 300,000 tons of concentrated orange juice are exported, making Brazil the world's foremost exporter of the product. In addition, eight processing plants are located in the "noble production axis," where citrus canker has just been verified. These units are worth about $120 million in buildings and equipment.

The disease attacks the tree, which produces no fruit in subsequent years. It is caused by a bacterium which is easily disseminated, carried on the air, or in packing cases and on agricultural machinery. The infection occurs particularly on the outer part of the crown of the tree, and the bacteria can survive for several months on infected fallen leaves. Citrus canker belongs to a group of diseases for which there is no curative treatment. The most efficient way to combat it is to destroy the plants. This mean destroying both diseased plants and apparently healthy plants within a radius of 50 to 1,000 meters.

Eradication Campaign

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 19 Jan 80 p 22

[Text] Brasilia--No oranges from groves infected with citrus canker may be processed and exported in the form of juice, Helio Teixeira warned yesterday. Teixeira, under secretary for plant defense, Ministry of Agriculture, reported that CANECC [National Campaign for Eradication of Citrus Canker], in collaboration with the state of Sao Paulo, will train 200 teams, with 3 technicians each, to inspect every citrus tree (orange, lemon and tangarine) in the eight Sao Paulo municipios constituting the so-called export zone. The job should be completed by March, when the harvest begins.

Celso Ferraz de Oliveira Santos, a specialist in the disease, will be loaned by the Campinas Biological Institute to take over the duties of coordinator of CANECC. Santos called the situation serious in the two municipios (Monte Alto and Candido Mota) where the first citrus canker foci appeared within the orange juice export zone. Santos added that the desease cannot be said to be under control until all the municipios in the region have been inspected. "Citrus canker in the export area is a serious threat to Sao Paulo's citrus farming," he said, "but it would be going too far to say it is doomed."

Santos detected the first citrus canker foci in Brazil in 1957, in a grove in the Sao Paulo municipio of Presidente Prudente. He said that from the extent of contamination in the Monte Alto and Candido Mota lemon groves, it may be assumed that the disease was brought into the area on harvesting equipment, such as crates or trucks.

Santos said the state's Agriculture Secretariat is doing a good job of preparing for the destruction of the contaminated groves in the two municipios, which are located within the export zone. At the moment there are 50 inspection teams working in the area, and 40 men to destroy the trees.

Diseased or suspect trees are being pulled up with tractors, taken to a location on the property and burned. Santos explained that without a general engagement (federal, state and municipal governments, growers' associations, producers, technicians and industrialists), it would be impossible to prevent the disease from spreading to all the municipioes that constitute the so-called "export zone."

The future CANECC coordinator said that the harvest and sale of all citrus fruits in the region is suspended until all the groves in the export zone have been inspected. In his opinion, even if this inspection does not indicate any new foci, it is important to institute a system of continuing vigilance to prevent the initial foci from spreading to other municipios. According to Santos, this vigilance is not the responsibility of the producer alone, because "for fear of seeing his grove destroyed, he will not report the disease until it is too late to take effective action."

Santos said that although citrus canker has reached Sao Paulo's "export zone," he rejects the claim that the technicians responsible for controlling it have been at fault. "It happens," he declared, "that in these 23 years of struggle, the technicians have not always had the necessary support. In 1965, for example, the government of Parana refused to take part in the campaign. The thinking began to change during the last administration, when CANECC and FUNDCITROS were officially created. They receive funds from all the sectors economically involved in citrus production. Recently, CANECC was allotted 1.2 billion bruzeiros for operations to combat the disease over the next 3 years."

Minas Gerais Limits Imports

Rio de Janeiro JORNAL DO BRASIL in Portuguese 20 Jan 80 p 21

[Text] Belo Horizonte--Minas Gerais will reduce its imports of citrus fruit from Sao Paulo, which currently supplies about 80 percent of the consumer market in Minas. Agriculture Secretary Gerardo Renault made the decision yesterday, in an effort to avoid the danger of bringing in citrus canker from Sao Paulo.

The secretary met yesterday with Luis Carlos Lobato, chief of the DDSV [Department of Plant Health Defense], and the two agreed to conduct a survey of all the growing areas in the Minas Triangle and to intensify citrus production in the state. According to Lobato, the reduction in purchase is the only way to avoid the danger of contagion in the Minas groves.

Supervision

He said that in Sao Paulo, where the disease has led to the interdiction of an area that already includes about 10 million trees, the situation is more serious than imagined, and could be extended throughout Sao Paulo. The government of Minas Gerais inspects fruits delivered to the CEASA [Wholesale Distribution Center] in Belo Horizonte.

At the meeting, it was decided that fruit exports to Sao Paulo and other states will be banned, that banks of selected stock will be created and that seedlings will be produced in the state. It was also decided to establish an experimental station for citrus fruit. In the opinion of the director of the DDSV, to the extent that imports of Paulista fruits are reduced, the Minas Gerais producers will be motivated to produce more for the intrastate market.

6362
CSO: 5400

BLACK SIGATOKA QUARANTINE MEASURES DISCUSSED

San Jose LA REPUBLICA in Spanish 22 Jan 80 p 12

[Text] The adoption of strict internal quarantine measures to prevent and delay the dissemination of black sigatoka to areas free of it was one of the conclusions of the International Technical Meeting on black sigatoka which ended yesterday at the Hotel Irazu.

The meeting also established the need for adoption of effective and economical methods for eliminating focuses of infection of the pathogen causing the disease, as well the preparation of adequate chemical-preventive control of the disease.

Furthermore, it was agreed to institute research designed to find more economical methods for controlling the disease, compared to those now being used.

The meeting also requested promotion of good cultivation practices on all banana and plantain plantations, such as adequate fertilization, proper pruning, effective control of weeds and a strict system of vegetable sanitation.

For those countries in which the disease has not yet been detected, it was suggested that periodic checks be made to determine the presence of black sigatoka in areas growing bananas, plantains and other species of this kind.

Recommendations were also made for establishment and reinforcement of quanrantine measures to prevent and delay the introduction of the disease both at the borders and via the internal roads of each country.

To accomplish all these things, countries which produce bananas and plantains will have to coordinate their efforts to purchase chemical products used for effective control of the disease. They should also support all measures designed to protect plantain plantations in each of the producing countries.

8143
CSO: 3010

TOBACCO BLUE MOLD PLANT DISEASE EPIDEMIC SPREADS NATIONWIDE

How It Affects Economy

Havana GRANMA in Spanish 24 Jan 80 pp 2-3

[Article by Fernando Davalos: "What Is Blue Mold and How Does It Affect Our Economy?"[

> [Text] We lose 48 percent of the seed nurseries; large areas are not planted due to the lack of plants for transplanting; 27 percent of the planted area already lost and almost all of the plantations hit.

The "blue mold" fungus disease, which reappeared in Cuba since the end of the last tobacco harvest, has now broken out violently and in a widespread fashion throughout all provinces of the country.

After almost 20 years without any reports of this occurrence in Cuba's tobacco growing areas, this destructive fungus hit our plantations during the 1978-1979 season, practically at the moment when the harvest was already in its final phase; nevertheless, it caused considerable losses which were reported to the population through the press at the proper time.

The disease began during the current harvest in Sancti Spiritus, at the end of November 1979; it was first reported from a seed nursery in the Jatibonico area. New outbreaks immediately took place in Cabaiguan, Villa Clara, and the province of Granma. Tobacco seedbeds in Pinar del Rio, La Habana, Ciego de Avila, and Holguin continued to report blue mold in the middle of December.

As we know, Cuban tobacco is first planted in seedbeds from the end of October and November onward and this goes on until January so as to make sure that we have the plants necessary for transplanting to the final growing areas.

The rate of blue mold in the seedbeds is considered to be very intensive in view of the stacking and vulnerability of the small and tender little tobacco plants. These effects emerge massively in the fields, giving them the appearance of a vast area burned by herbicides.

The first decision made by the country's agricultural authorities was to demolish complete seed nurseries in an effort practically to eliminate the outbreaks. But this measure was unable to stop the aggressive fungus and it was decided to plant areas with seeds so as to produce even more plants for transplanting.

The deterioration of this situation--the complete spread of blue mold throughout the country--made it necessary to suspend the demolition of beds and seed nurseries and to proceed to the selection of plants for transplanting.

Prior to that, considering the outbreak of the disease during the prior harvest, the Ministry of Agriculture had decided not to use the seeds produced during the 1978-1979 season and to use seeds obtained during earlier years which constituted the government reserve precisely for this sort of contingency.

Parallel to the appearance of the disease or before that, greater strictness was ordered in the application of the indicated fungicides (75-percent Zineb, 80-percent Maneb, streptomycin sulfate, and others, all of which are imported). Prior to the appearance of blue mold, standards called for the application of every 7 days and, once the outbreak was reported, every 4 days.

A drive was also ordered to anticipate the outbreak of the disease and careful selection was made of seed nursery areas, along with the practical implementation of agriculture-engineering measures, all of which were strictly carried out.

Technicians and specialists from Vegetation Health feel—at this point in the development of the disease and considering its characteristics--that the fungicides employed and the application methods—unnecessary and almost unknown until then with respect to Cuban tobacco—were not sufficient to stop a nationwide outbreak of such tremendous epiphytic force.

The country had to go through with its national transplanting program--in spite of these circumstances--which was in line with an ambitious plan to reach an output figure of 1 million quintals on an area of 5,021 caballerias, so as to increase the availability of leaves for domestic consumption and exports.

The national tobacco-growing plan for 1979-1980 will assume greater importance as compared to earlier years and it was prepared in great detail and with high quality, mobilizing a tremendous effort on the part of our peasants and agricultural workers in the tobacco industry.

All of our growing areas made every possible effort to make sure that not a single detail would be overlooked in this endeavor.

The big tobacco-growing provinces--Pinar del Rio, Villa Clara, Sancti Spiritus, and La Habana--devoted voluminous material, human, and financial resources to push the drive in spite of the fact that blue mold had begun to spread.

As the transplanting was carried out on a massive scale, from the very beginning, the disease also began to emerge in the final plantations and it was immediately combated with the available fungicides. At the same time, starting in December, very unfavorable weather conditions developed, primarily in the form of too much rainfall.

This increase in moisture caused the situation to become worse and even more promoted the development of the disease, greatly multiplying the losses in seed nurseries and plantations--a situation that became particularly acute in Pinar del Rio which had allocated 60 percent for the planting.

Damage to leaves (spots and holes), leading to further quality decline or total destruction, choking and retardation of leaf and plant growth--as a result of blue mold--made their terrible appearance in all provinces and practically in all tobacco-growing areas, hitting them completely or partly.

Right now (as of the middle of January 1980) only about 300 caballerias of tobacco land are reported to be free of blue mold throughout the country, although the disease continues to spread and planting has not been stopped, in spite of the fact that a shortage of plants for transplanting is beginning to shape up.

As of 31 December, 726 caballerias were considered lost completely, out of a planted area of 2,689 caballerias (approximately 27 percent). With the plants available for transplanting at that date and figuring on the maximum possibility of increase, the nation estimated that the maximum planting area would cover 3,699 caballerias.

This undertaking is obviously impaired to an unpredictable extent at this moment, now that the disease continues to have a severe effect on new plantations and those already in existence.

Cuban tobacco growers and technicians as well as our Plant Health specialists have outlined a series of agricultural-engineering and chemical measures in this bitter battle against blue mold in order to reduce its devastating effects as much as possible. In recent weeks, they have even tried highly effective products which however are available only in limited amounts.

Persons familiar with the situation say that the disease has hit the tobacco varieties that are most susceptible to blue mold, the only ones

in the area, such as the traditional "gold leaf" (half of the national tobacco area) and others. The introduction of more resistant plants--we are now studying resistance to blue mold in new varieties of clones existing at the experimental stations--and the introduction of highly effective fungicides, the employment of more efficient application measures, the utilization of agricultural-technology practices in keeping with this problem and other measures summarized the strategy which the country is developing for the years to come, starting however already with the current harvest and the next one in 1980-1981.

Seedbed Situation

Havana GRANMA in Spanish 24 Jan 80 p 2

[Text] Seed Nursery Situation (1,000 Seedbeds)

Provinces	Seedbeds Planted			
	Plan	Actual	%	Losses
Pinar de Rio	722.1	1,060.3	147	523.7
La Habana	18.5	23.5	127	6.0
Villa Clara	150.9	198.2	131	107.3
Sancti Spiritus	162.2	223.7	138	66.1
Ciego de Avila	23.0	32.2	140	21.9
Las Tunas	7.2	9.4	131	5.7
Holguin	28.9	29.5	102	18.2
Granma	44.2	62.3	141	38.2
Santiago de Cuba	3.2	2.4	75	-
TOTAL	1,160.2	1,641.5	141	787.1

We note in the table--which reflects the situation as of 31 December 1979--that the country planted almost half a million tobacco seedbeds above the plan (giving us a figure of 141 percent), so as to guarantee the supply of plants for transplanting and to counteract the effects of the disease. All of the tobacco-growing provinces (with the exception of Santiago) planted more seedbeds than specified in the plan.

The losses, mostly due to blue mold, amount to almost 800,000 seedbeds (approximately 48 percent), and the situation is identical as reported from almost all of the provinces. In Pinar del Rio--the country's biggest tobacco-growing province--losses exceeded half a million seedbeds, with an enormous quantity of tobacco transplanting plants wiped out.

Short Plant Life

Havana GRANMA in Spanish 24 Jan 80 p 2

[Text] The lush appearance overwhelms the senses in this rich plain of San Antonio de los Banos (belonging to the "Lazaro Pena" Agricultural Tobacco-Growing Enterprise, in Havana), as we can see from the photo above. This very fine tobacco, called the "Corojo" variety, is intended for the wrapper because of its texture and quality; it was given no less than 211 cubic meters of organic fertilizer and two applications of chemical fertilizer in this field in District 3. This piece of land was subjected to dozens of hours of plowing as well as mechanical and manual crop cultivation; more than six water irrigation phases were applied to this proliferous red clay of Matanzas, to get the best possible product. Valuable agricultural working hours were devoted to getting first-grade tobacco here. Almost imperceptibly, spots appeared on some leaves and an unsightly mold spread on top of them. The technicians, managers, and workers realized that this was an outbreak of blue mold and although they fought hard, only 72 hours later the entire plantation had been invaded and was useless, as we can see in the photo below. It is now necessary to clear the field, with "hurt in the heart," as the growers confessed with much bitterness. Scenes, such as the one in the photo published on the front page, referring to a plain in San Antonio de los Banos--where, we are told, the disease was not as bad--are repeated in Pinar del Rio, Villa Clara, Sancti Spiritus, and other places.

Disease Explained

Havana GRANMA in Spanish 24 Jan 80 p 3

[Text] Blue mold is a disease caused by the fungus Peronospora tabacina Adam, which is characterized by its pathogenic aggressiveness, its rapid spread, and its ability to cause devastating losses. It appears on the reverse side of the green tobacco leaf in the form of the sporulation of the fungus which has a bluish-grey moldy appearance; on the front of the leaf, there is a slight decoloration which rapidly turns orange-yellow. In a few days, the leaves are useless and plant growth stops; the plant winds up looking withered and dry, and the disease rapidly spreads throughout the entire plantation.

The first reports on the disease date back to the end of the last century but its most notable outbreaks occurred in 1921 and 1931 in the United States (where it was already definitely established by that time) and in Europe between 1958 and 1962. It appeared in Cuba in 1957, it remained for a short time and it then disappeared until the end of the 1978-1979 tobacco harvest and this harvest.

Right now, blue mold has spread to practically all of the tobacco-growing regions of Europe, the Near East, and the area of the Mediterranean, the United States, Canada, Mexico, Cuba, Brazil, and Argentina. It has also been reported in the traditional tobacco-growing districts of Africa, Asia, Australia, and other places.

A report on the end of the harvest, received at our editorial offices, dramatically illustrates the spread of this disease in North America.

"The feeling of tobacco-growers in the province of Ontario, Canada, is characterized by a certain degree of panic and considerable pessimism. Blue mold continues to spread throughout the fields, wiping out leaves as it passes through. According to one source, 500 farms have already been hit and some of them have been completely wrecked.

"Those growers who have been able to harvest the crop in time discovered that the tobacco turns black and they were able to salvage some of their crop only under optimum curing conditions.

"In spite of the fact that everyone was urged to remain calm, there have been strong words, blaming the disaster on poor inspection at the border because it is believed that the disease came in through seeds from Florida. The problem now is how to fight against the disease because it seems to make no sense to use chemical products, once the plant has been invaded."

This report, coming from Canada, concludes with a question as to whether the persistent spread of blue mold could end with the winter cold season--something which is quite improbable--and it hints at concern with an even more serious problem: Scientists are afraid that this is a more resistant variety.

5058
CSO: 5400

BRIEFS

TOBACCO PLANT DISEASES--Jaime Crombet, member of the PCC Central Committee and first party secretary in Pinar del Rio Province, has toured tobacco plantations in the municipalities of San Juan y Martinez and San Luis, where he was briefed on the attention required by the many caballerias of tobacco. Thanks to the use of chemical products these plantations were saved from the blue mold and black root rot, diseases which have seriously affected our tobacco crop. Crombet was briefed on lands that did not produce tobacco and were used for planting grains and vegetables for local consumption. Closing his tour Crombet visited the black tobacco experimental station in San Juan y Martinez where various varieties are being studied because of its characteristics of resisting diseases. [Text] [FL130146 Havana Domestic Television Service in Spanish 0100 GMT 13 Feb 80 FL]

CSO: 5400

BRIEFS

COFFEE RUST CONTROL--The Agriculture Ministry and the National Guard are carrying out a thorough military and sanitary operation on the border with Brazil in an effort to prevent the coffee rust blight from crossing into Venezuelan territory. [PA111337 Caracas Radio Rumbos in Spanish 1530 GMT 6 Feb 80 PA]

CSO: 5400

BRIEFS

PHU KHANH RICE INSECTS--Some 3,000 hectares of winter-spring rice in Phu Khanh Province are being affected by helminthosporium oryzae, pachidiplosis oryzae, leaf rollers and rice armyworms. Technical cadres have been sent by the agricultural sector to Tuy Hoa, Dien Khanh, Tuy An and Ninh Hoa districts--worst hit by the insects--to help peasants fight them. Due to intensive efforts, half of the insect-affected area has been saved. [Hanoi Domestic Service in Vietnamese 2300 19 Jan 80 BK]

CSO: 5400

END

SELECTIVE LIST OF JPRS SERIAL REPORTS

WORLDWIDE SERIAL REPORTS

WORLDWIDE REPORT: Environmental Quality
WORLDWIDE REPORT: Epidemiology
WORLDWIDE REPORT: Law of the Sea
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WORLDWIDE REPORT: Telecommunications Policy, Research and Development

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